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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/427,802	10/27/1999	BAHRAM GHAFFARZADEH KERMANI	KERMANI-14	3789

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EXAMINER
HIRL, JOSEPH P

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 08/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *June 27, 2003* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: .

DETAILED ACTION

1.   This Office Action is in response to an Appellants' Brief entered June 27, 2003

for the patent application 09/427,802 filed on October 27, 1999.

2.   All prior office actions are fully incorporated into this Office Action by reference.

3.   The claims and only the claims form the metes and bounds of the invention.

"Office personnel are to give the claims their broadest reasonable interpretation in light

of the supporting disclosure. *In re Morris,* 127 F.3d 1048, 1054-55, 44USPQ2d 1023,

1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in

the claim are not read into the claim. *In re Prater,* 415 F.2d, 1393, 1404-05, 162 USPQ

541, 550-551 (CCPA 1969)" (MPEP page 2100-8, col 2 lines 45-48; page 2100-9, col

1, lines 1-4). The Examiner has full latitude to interpret each claim in the broadest

reasonable sense. Examiner will reference prior art using terminology familiar to one of

ordinary skill in the art. Such an approach is broad in concept and can be either explicit

or implicit in meaning.

4.   In view of the appeal brief filed on June 27, 2003, PROSECUTION IS HEREBY

REOPENED. New grounds of rejection are set forth below.

        To avoid abandonment of the application, appellant must exercise one of the

following two options:

        (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply

under 37 CFR 1.113 (if this Office action is final); or,

        (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied

by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130,

1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Status of Claims

5.   Claims 1-20 are pending.

Claim Objection

6.   Claims 7 and 14 does not further limit the subject matter of the preceding claim

and is objected to under 37 CFR 1.75 (c). Claim 1, step 2 generates "an optimized

rule." Claim 7 references "predetermined number of rules."

Claim Rejections - 35 USC § 102

7.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8.   Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Hung (U.

S. Patent 5,727,130, referred to as **Hung**).

Claim 1

Hung anticipates generating a pool of random rules having a fitness

function and storing said random rules (**Hung**, col 123, lines 37-41; col 4, lines 27-40);

evolving said random rules using a genetic algorithm to improve the fitness function of

said rules in said random rule set until the overall fitness function of said rules plateaus,

thereby generating an optimized rule (**Hung**, col 4, lines 27-67; col 5, lines 1-8); and

storing said optimized rule in an optimized rule storage area, said rules stored in said

optimized rule storage area comprising said optimized rule set (**Hung**, col 7, lines 20-

22; col 12, lines 31-35).

Claim 2

Hung anticipates checking said optimized rule storage area to determine

if it contains any optimized rules (**Hung**, col 12, lines 31-35; col 5, lines 1-4); and using

any optimized rules contained in said optimized rule storage area when generating said

pool of random rules (**Hung**, col 12, lines 31-35; col 5, lines 1-4).

Claim 3,

Hung anticipates evolving step comprises evolving the features of said random

rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are

made up of rules which are made up of operators, features, cases and qualifiers).

Claim 4,

Hung anticipates evolving step comprises evolving the qualifiers of said random rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are made up of rules which are made up of operators, features, cases and qualifiers).

Claim 5,

Hung anticipates evolving step comprises evolving the operators of said random rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are made up of rules which are made up of operators, features, cases and qualifiers).

Claim 6,

Hung anticipates evolving step comprises evolving the features, cases, qualifiers, and operators of said random rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are made up of rules which are made up of operators, features, cases and qualifiers).

Claim 7,

Hung anticipates generating, evolving, and storing steps are repeated until a predetermined number of rules are stored as said optimized rule set (**Hung**, col 4, lines 66-67; col 5, line 1; EN: in reference to para 6 above, "rules" is interpreted to be singular).

Claim 8,

Hung anticipates said repeating of said steps occurs on a real-time basis (**Hung**, col 2, lines 59-67; col 3, lines 21-24; EN: Hung anticipates efficiency or real time operation).

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 9-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hung in view of Chidambaran (U. S. Patent 5, 727,130, referred to as **Hung**; IEEE

98[TH]8367, referred to as **Chidambaran**).

Claim 9

Hung teaches generating a pool of random rules having a fitness function and

storing said random rules (**Hung**, col 123, lines 37-41; col 4, lines 27-40); evolving said

random rules using a genetic algorithm to improve the fitness function of said rules in

said random rule set until the overall fitness function of said rules plateaus, thereby

generating an optimized rule (**Hung**, col 4, lines 27-67; col 5, lines 1-8); and storing said

optimized rule in an optimized rule storage area, said rules stored in said optimized rule

storage area comprising said optimized rule set (**Hung**, col 7, lines 20-22; col 12, lines

31-35).

Hung does not teach applying a stock market data set to said optimized rule set.

Chidambaran does teach applying a stock market data set to said optimized rule set

(**Chidambaran**, page 197, lines 13-15).   Therefore it would have been obvious to one

of ordinary skill in the art at the time the invention was made to use stock market data

in an optimized rule set. The use of such data would have been obvious because one

of ordinary skill in the art would have been motivated for financial gain to use such data.

Hung does not teach outputting a stock market analysis result based on the

application of said stock market data set to said optimized rule set. Chidambaran does

teach outputting a stock market analysis result based on the application of said stock

market data set to said optimized rule set (**Chidambaran**, page 197, lines 13-15).

Therefore it would have been obvious to one of ordinary skill in the art at the time the

invention was made to develop stock market analysis from the analysis of stock

market data. The development of such analysis would have been obvious because one

of ordinary skill in the art would have been motivated by financial gain and such analysis

is axiomatic to the output of completed action.

Claim 10

Hung teaches evolving step comprises evolving the features of said random rules

(**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are made

up of rules which are made up of operators, features, cases and qualifiers).

Claim 11

Hung teaches evolving step comprises evolving the qualifiers of said random

rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are

made up of rules which are made up of operators, features, cases and qualifiers).

Claim 12

Hung teaches evolving step comprises evolving the operators of said random

rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50; Examiner's Note: Chromosomes are

made up of rules which are made up of operators, features, cases and qualifiers).

Claim 13

Hung teaches evolving step comprises evolving the features, cases, qualifiers,

and operators of said random rules (**Hung**, col 4, lines 23-25; col 7, lines 29-50;

Examiner's Note: Chromosomes are made up of rules which are made up of operators,

features, cases and qualifiers).

Claim 14

Hung teaches generating , evolving, and storing steps are repeated until a

predetermined number are stored as said optimized rule set (**Hung**, col 4, lines 66-67;

col 5, line 1; EN: in reference to para 6 above, "rules" is interpreted to be singular).

Claim 15

Hung teaches repeating of said steps occurs on a real-time basis (**Hung**, col 2,

lines 59-67; col 3, lines 21-24; EN: Hung anticipates efficiency or real time operation).

Claim 16

Hung does not teach that stock market data set comprises data regarding a

particular stock choice. However, Chidambaran does teach stock market data set

comprises data regarding a particular stock choice (**Chidambaran**, page 202, lines 18-

20). Therefore it would have been obvious to one of ordinary skill in the art at the time

the invention was made to make a stock selection from a stock database. The use of

selective data would have been obvious to one of ordinary skill in the art motivated by financial gain. (EN: Applicant has stated (Reply of August 9, 2002, page 3) that "particular stock choice", "particular stock market", "mutual funds", and "futures" are elementary investment terms that are known to most members of the general public and hence would be known to one of ordinary skill in the art).

Claim 17

Hung does not teach stock market data set comprises data regarding a particular stock market. However, Chidambaran does teach stock market data set comprises data regarding a particular stock market (**Chidambaran**, page 202, lines 18-20). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make a stock market selection from a stock database. The use of selective data would have been obvious to one of ordinary skill in the art motivated by financial gain within the stock investment market. See comments of Claim 17.

Claim 18

Hung does not teach stock market data set comprises data regarding a particular segment of stocks. However, Chidambaran does teach stock market data set comprises data regarding a particular segment of stocks (**Chidambaran**, page 202, lines 18-20). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make a stock selection of a segment of the market (i.e. mutual funds) from a stock data base. The use of selective data would have been obvious to one of ordinary skill in the art motivated by financial gain within the stock investment market for diversification. See comments of Claim 17.

Claim 19

Hung does not teach stock market data set comprises data regarding mutual funds. However, Chidambaran does teach stock market data set comprises data regarding mutual funds (**Chidambaran**, page 201, lines 4-12). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make a stock selection of a segment of the market (i.e. mutual funds) from a stock data base. The use of selective data would have been obvious to one of ordinary skill in the art motivated by financial gain and using the expertise of a market manager. See comments of Claim 17.

Claim 20

Hung does not teach stock market data set comprises data regarding futures. However, Chidambaran does teach stock market data set comprises data regarding futures (**Chidambaran**, page 201, lines 4-12). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make a market anticipation selection of data from a stock database. The use of market anticipation data would have been obvious to one of ordinary skill in the art and very motivated by financial gain. See comments of Claim 17.

Conclusion

10.   Claims 1-20 are rejected.

Correspondence Information

Any inquiry concerning this information or related to the subject disclosure should be directed to the Examiner, Joseph P. Hirl, whose telephone number is (703) 305-1668. The Examiner can be reached on Monday – Thursday from 6:00 a.m. to 4:30 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Anil Khatri can be reached at (703) 305-0282.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

or faxed to:

(703) 746-7239 (for formal communications intended for entry);

or faxed to:

(703) 746-7290 (for informal or draft communications with notation of "Proposed" or "Draft" for the desk of the Examiner).

Hand-delivered responses should be brought to:

Receptionist, Crystal Park II

2121 Crystal Drive,

Arlington, Virginia.

Joseph P. Hirl

August 13, 2003

ANIL KHATRI
PRIMARY EXAMINER